

## **ABSTRACT**

The aim of the study was done to compare and evaluate the validity and reliability of tooth widths and Bolton ratios obtained from intraoral scanner and plaster models got using alginate and polyvinyl siloxane impression material. In this study 40 subjects were selected based on the criteria of full complement of permanent teeth present from right first molar to left first molar in both upper and lower arches. Models were collected by three methods using alginate, polyvinyl siloxane and intraoral scanner. Comparisons were done between all the three groups considering tooth widths and Bolton ratios accordingly. The data was subjected to statistical analysis and the study concluded that, the value obtained from the OrthoAnalyzer software showed a higher values in terms of tooth width and boltons ratio as compared with the alginate and polyvinyl siloxane impression models. The validity of the tooth width and Boltons ratio measured between alginate and polyvinyl siloxane models showed no significant difference. So the plaster models are still the best method for measuring tooth width and Bolton ratio. The intraoral scanner group showed higher reliability when compared to the alginate and the polyvinyl siloxane groups.